



PATENT  
Docket No. 285.00810102

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Caswell et al. ) Group Art Unit: 2661  
Serial No.: 09/400,607 ) Examiner: D. Ton  
Conf. No.: 3600 )  
Filed: 20 September 1999 )  
For: COMPUTER-BASED MULTIFUNCTION PERSONAL COMMUNICATION  
SYSTEM WITH CALLER ID

APPEAL BRIEF

Assistant Commissioner for Patents  
Attn: Box AF  
Washington, D.C. 20231

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Dear Sir:

Appellants present this Appeal Brief in support of the appeal from the final rejections of claims 7-19 of the above-identified patent application as indicated in the Notice of Appeal filed 13 June 2002.

Real Party in Interest

The real party in interest is Multi-Tech Systems, Inc. of Mounds View, Minnesota, as evidenced by the assignment at Reel 7303/Frame 0332.

Related Appeals and Interferences

There are no known related appeals or interferences pending in connection with the present application.

Status of Claims

Claims 7-19 are pending. Claims 1-6 have been cancelled. Therefore, the final rejection of claims 7-19 is appealed.

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**Status of Amendments**

No amendments were filed subsequent to the Final Office Action dated 13 March 2002. All pending claims 7-19 are presented in attached Appendix A.

**Summary of the Invention**

The present invention provides for rapid identification of a caller and limited access to personal communications systems based on a variety of parameters obtained from caller identification information. For example, incoming telephone call information may be compared to a preprogrammed access matrix to determine if the caller is authorized to access the personal communications system.

Exemplary embodiments of system interfaces according to the present invention are described in claims 16 and 19, diagrammatically illustrated in at least portions of FIGS. 16-17B, and generally described at page 67, line 29 through page 80, line 2. Further, the present invention provides a method for controlling access to a telephone personal communications system as set forth in claim 7. Exemplary embodiments of such a method are described in claim 7, diagrammatically illustrated in FIGS. 16-21, and generally described at page 67, line 29, through page 80, line 2.

In general, the personal communications system 1600 of the present invention is the interface between a standard telephone line service 1610 and a computer system 1620 using telephone lines 1630. *See* FIG. 16. Caller ID interface 1650 provides caller ID functionality to personal communications system 1600.

The personal communications system interface that is connected to a telephone line, as described, e.g., in claim 16, includes a telephone input port for receiving telephone signals into the interface. The caller ID interface 1650 includes a ring detector 1710, an off-hook circuit 1720, a caller identification information decoder 1750, a controller 1770, and memory device 1780. *See, e.g.,* FIG. 17A. The ring detector 1710, which is connected to the telephone input port, is used to detect incoming calls. The caller ID decoder 1750 is connected to the telephone input port through the off-hook circuit 1720. The off-hook circuit 1720 is used to hang up on an

unwanted caller before actually answering the telephone.

In one embodiment of the present invention, the caller ID interface 1650 acquires information about incoming calls by decoding the incoming caller ID information. The controller 1770 compares the caller ID information to an access matrix for identification purposes. The controller 1770 handles calls based on the caller identification information decoded by the caller ID information decoder 1750 and information in the access matrix. If the controller 1770 operates to detect an unauthorized caller, then the controller 1770 places the telephone input port off-hook and then hangs up on the unauthorized caller before the unauthorized caller is able to access the personal communications system interface.

In an alternate embodiment as generally described, e.g., in claim 19, the personal communications system interface 1650 may also include a multiplexer 1740. The multiplexer 1740 may connect the caller ID decoder 1750 to the telephone input port and dc holding circuit 1730 used to maintain a connection with the incoming telephone call. The multiplexer 1740 may select telephone signals from the telephone input port for caller identification information decoding at caller ID decoder 1750 and from the dc holding circuit 1730 for personal communications system data decoding.

The present invention further includes a method for controlling access to a telephone personal communications system as is generally illustrated in claim 7. Various access parameters (2002) are provided as shown, for example, in FIG. 20. A variety of preprogrammed criteria may be utilized to control access to the personal communications system. For example, in one embodiment, screening by name and telephone number is performed on an inclusive (or exclusive) basis by preprogramming the caller ID interface with the names or telephone numbers of the callers with (or without) access privileges. Access parameters may also include days and times of day.

The method further includes detecting a phone call (2004). Caller identification information is received without answering the phone call. The caller identification information is decoded (2006) and compared with access parameters to determine whether access is authorized (2008). If access is unauthorized, the telephone personal communications system is

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placed off-hook (2020) and the system hangs up (2022) so as to prevent access to the telephone personal communications system. If access is authorized, then a connection to the telephone personal communications system is enabled (2014).

**Issues**

- I. Whether claims 7-13 and 16-19 are patentable under 35 U.S.C. § 102(b) over Long (U.S. Patent No. 5,377,260).
- II. Whether claims 14-15 are patentable under 35 U.S.C. § 103(a) over Long.

**Grouping of Claims**

For the purposes of this appeal, claims 7-13 and 16-19 stand or fall together under Issue

I.

For the purposes of this appeal, claims 14-15 stand or fall together under Issue II.

**Arguments**

**I. Whether claims 7-13 and 16-19 are patentable under 35 U.S.C. § 102(b) over Long.**

The Examiner rejected claims 7-13 and 16-19 under 35 U.S.C. § 102(b) as being anticipated by Long. The Examiner alleged that Long teaches all of the elements of claims 7-13 and 16-19.

Independent claim 7 recites placing the telephone personal communications system off hook if access is unauthorized, and then hanging up so as to prevent access to the personal communications system. If access is authorized, a connection to the telephone personal communications system will be enabled. Independent claims 16 and 19 recite a personal communications system interface that includes a controller that places the telephone input port off-hook and then hangs up.

Long does not teach these elements of claims 7, 16, and 19. In fact, Long teaches something entirely different. As stated in Long, if a call is to be ignored, a display device receives an appropriate indication alerting the customer to ignore the phone. *See* Long, column

7, lines 13-30. However, from the disclosure provided in Long, the ringing continues until the calling party terminates the call. No "hanging up" operation is taught by Long.

The Examiner, however, further alleged that Long teaches a hang-up operation at column 4, lines 58-60 and column 6, lines 11-16. Appellants traverse this allegation. Long, at column 4, lines 58-60, teaches that "[t]he device can be programmed to prevent the ringing or not connect the phone when an unacceptable DN is detected." In other words, Long teaches that the disclosed device can be programmed to either not turn on the ring function of the phone being called or not place such phone in an off-hook state when an unauthorized caller ID is detected. Neither function disclosed by Long is equivalent to the hang-up function of the present invention.

Further, Long at column 6 teaches that "[i]f the called customer does not pick up the receiver, the ringing signal continues until the calling party hangs up their telephone which terminates the call." Long, column 6, lines 13-16 (emphasis added). The party receiving the incoming call does not hang up on the caller as alleged by the Examiner. Instead, the calling party terminates their own phone call by hanging up. This teaching of Long is completely opposite of the recitation of the present invention, where the telephone personal communications system being called hangs up on the caller if the caller's access to the system is unauthorized. Therefore, Long does not teach each and every element of claims 7, 16, and 19.

Claims 8-13 and 17-18, which depend from either independent claim 7 or 16, are not anticipated by Long for the same reasons as presented above for independent claims 7 and 16. In addition, claims 8-13 and 17-18 each recite additional elements that further support patentability when combined with claims 7 and 16.

For at least the above reasons, Appellants submit that claims 7-13 and 16-19 are not anticipated by Long.

**II. Whether claims 14-15 are patentable under 35 U.S.C. § 103(a) over Long.**

The Examiner rejected claims 14-15 under 35 U.S.C. § 103(a) as unpatentable over Long. The Examiner alleged that Long teaches all the subject matter of the claimed invention with the exception of a list of unauthorized caller names in a communications network. The Examiner further alleged that it would have been obvious to a person of ordinary skill in the art at the time of the invention to use the list of unauthorized users' names in the communications network of Long for the purpose of security because using the list does not provide any unexpected results.

Appellants submit that claims 14-15 are not *prima facie* obvious in view of Long because Long fails to teach or suggest all of the elements of such claims. For example, claims 14 and 15 are dependent from claim 7 and therefore include all the elements thereof. As such, Long fails to teach or suggest all the elements of claims 14 and 15 for the same reasons as presented above for the 35 U.S.C. § 102(b) rejection of claim 7. For example, as described above, Long does not teach placing the telephone personal communications system off hook if access is unauthorized, and then hanging up so as to prevent access to the personal communications system.

For at least the above reasons, Appellants submit that claims 14-15 are not *prima facie* obvious in view of Long.

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**Conclusion**

For the reasons provided herein, Appellants respectfully submit that pending claims 7-19 are patentable in view of the cited references. Review and reversal of the rejections are respectfully requested.

**CERTIFICATE UNDER 37 C.F.R. § 1.10:**

The undersigned hereby certifies that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated below and is addressed to the Assistant Commissioner for Patents, Attn: Box AF, Washington, D.C. 20231.



Sara E. Olson

"Express Mail" mailing label number:

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Date of Deposit: August 13, 2002

Respectfully submitted for

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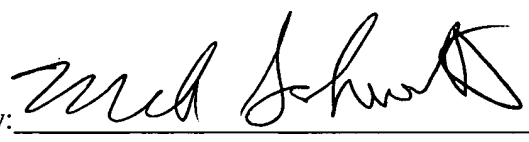
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PATENT TRADEMARK OFFICE

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**APPENDIX A - Pending Claims**

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7. A method for controlling access to a telephone personal communications system, comprising:

preprogramming a memory device with access parameters;

detecting a phone call;

receiving caller identification information without answering the phone call;

decoding caller identification information;

comparing caller identification information with access parameters to determine whether access is authorized;

if access is unauthorized, placing the telephone personal communications system off hook and then hanging up so as to prevent access to the telephone personal communications system; and

if access is authorized, enabling a connection to the telephone personal communications system.

8. The method of claim 7, wherein preprogramming further comprises programming a list of names of authorized caller names.

9. The method of claim 7, wherein preprogramming further comprises programming a list of authorized caller telephone numbers.



10. The method of claim 7, wherein preprogramming further comprises programming a list of authorized times of day to call.

11. The method of claim 7, wherein preprogramming further comprises programming a list of authorized days to call.

12. The method of claim 7, wherein preprogramming further comprises programming a list of authorized caller names, days and times of day to call.

13. The method of claim 7, wherein preprogramming further comprises programming a list of authorized caller telephone numbers, days and times of day to call.

14. The method of claim 7, wherein preprogramming further comprises programming a list of unauthorized caller names.

15. The method of claim 7, wherein preprogramming further comprises programming a list of unauthorized caller numbers.

16. A personal communications system interface connected to a telephone line, the personal communications system interface comprising:

a telephone input port for receiving telephone signals into the personal communications system interface;

a ring detector, connected to the telephone input port, for detecting incoming calls;

an off-hook circuit connected to the telephone input port, for placing the telephone input port in an off-hook condition;

a caller identification information decoder, connected to the telephone input port through the off-hook circuit, for decoding caller identification information;

a controller, connected to the ring detector, off-hook circuit, and caller identification information decoder, for comparing the caller identification information to an access matrix for identification purposes; and

a memory device, connected to the controller, for storing the access matrix, wherein the controller handles calls based on the caller identification information decoded by the caller identification information decoder and information in the access matrix, wherein if the controller operates to detect an unauthorized caller, then the controller places the telephone input port off-hook and then hangs up on the unauthorized caller before the unauthorized caller is able to access the personal communications system interface.

17. The system interface of claim 16 wherein the controller is a processor.

18. The system interface of claim 16 wherein the controller is combinational logic.

19. A personal communications system interface, connected to a telephone line, for screening incoming telephone calls to personal communications system electronics, the personal communications system interface comprising:

a telephone input port for receiving telephone signals into the personal communications system interface;

a ring detector, connected to the telephone input port, for detecting an incoming call;

an off-hook circuit, connected to the telephone input port, for connecting the personal communications system interface to the telephone line;

a dc holding circuit, connected to the off-hook circuit and the input port, for maintaining a connection with incoming telephone calls;

a decoder for decoding caller identification information and personal communications system data;

a multiplexer, connecting the decoder to the telephone input port and the dc holding circuit, for selecting telephone signals from the telephone input port for caller identification information decoding and from the dc holding circuit for personal communications system data decoding;

a controller, connected to the ring detector, off-hook circuit, dc holding circuit, multiplexer, and decoder, for controlling the internal personal communications system interface and for comparing caller identification to an access matrix for authorization purposes, wherein if the controller detects an unauthorized caller, then the controller places the telephone input port

off-hook and then hangs up; and

a memory device, connected to the controller, for storing the access matrix.